

## **REMARKS**

Applicant is in receipt of the Office Action mailed September 13, 2004. The subject matter of claims 15 and 20 has been included in claim 1. Accordingly, Applicant cancels claims 15 and 20. The subject matter of claims 31 and 36 has been included in claim 24. Accordingly, Applicant cancels claims 31 and 36. Applicant cancels claims 41 and 42 without prejudice or disclaimer to the subject matter recited therein. The subject matter of claim 48 has been included in claim 43. Accordingly, Applicant cancels claim 48. Applicant submits new claims 63-69 to more fully and completely claim Applicant's invention. Claims 1-14, 16-19, 21-30, 32-35, 37-40, 43-47, and 49-69 are pending. Reconsideration of the present case is earnestly requested in light of the following remarks.

### **Objections to the Drawings**

As noted above, Applicant submits replacement sheets for Figures 13, 23, and 25. Applicant has amended these figures to show that they illustrate prior art.

Applicant respectfully requests removal of objections to the drawings.

### **Claim Objections**

Claim 42 was objected to under 37 C.F.R. 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

As respectfully noted above, Applicant cancels claim 42 without prejudice or disclaimer to the subject matter recited therein.

### **§112 Rejections**

Claims 9, 31-38, 49, 57-58 were rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is respectfully traversed.

Applicant has amended claim 9 and respectfully submits that claim 9 is allowable.

As noted above, Applicant has included the subject matter of claim 31 in claim 24 and has canceled claim 31. Accordingly, Applicant has amended claims 32-35 and 37-38 to depend from claim 24. Accordingly, Applicant respectfully submits that claims 24 and those dependent therefrom are allowable.

As noted above, Applicant has included the subject matter of claim 48 in claim 43 and has canceled claim 48. Applicant respectfully submits that claim 49 has sufficient antecedent basis. Accordingly, Applicant respectfully submits that claim 49 is allowable.

Applicant has amended claim 57 and respectfully submits that claim 57 and those dependent therefrom are allowable.

Removal of the §112 rejections is respectfully requested.

#### **§101 Rejections**

Claims 41-42 were rejected under 35 U.S.C. 101 as directed to non-statutory subject matter.

As noted above, Applicant cancels claims 41 and 42 without prejudice or disclaimer to the subject matter recited therein

Removal of the §101 rejections is respectfully requested.

#### **§102 Rejections**

Claims 1-19, 22-35, 38-47, and 50-58 were rejected under 35 U.S.C. 102(e) as being anticipated by Clark et al. (U.S. Patent No. 6,411,922, hereinafter “Clark”). This rejection is respectfully traversed.

As the Examiner is certainly aware, anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Applicant respectfully submits that Clark neither teaches nor suggests “. . . wherein the second solution uses the model of the first solution to determine how the first solution will respond to actions provided by the second solution. . .” as currently recited by claim 1. Thus, Applicant respectfully submits that claim 1 is patentably distinguished over Clark. Accordingly, Applicant respectfully submits that, at least for one or more reasons presented, claim 1 and those dependent therefrom are allowable.

Claim 24 includes limitations similar to claim 1, and so the arguments presented above apply with equal force to claim 24, as well. Thus, Applicant respectfully submits that claim 24 is patentably distinguished over Clark. Accordingly, Applicant respectfully submits that, at least for one or more reasons presented, claim 24 and those dependent therefrom are allowable.

Applicant respectfully submits that Clark neither teaches nor suggests “. . . including the model of the second solution into the first solution, wherein the first solution uses the model of the second solution to determine how the second solution will respond to actions provided by the first solution. . .” as currently recited by claim 43. Thus, Applicant respectfully submits that claim 43 is patentably distinguished over Clark. Accordingly, Applicant respectfully submits that, at least for one or more reasons presented, claim 43 and those dependent therefrom are allowable.

Applicant respectfully submits that Clark neither teaches nor suggests “. . . creating a software program that implements a model, wherein the model combines

aspects of a first-principles model and an empirical model, wherein the empirical model is created from a regression of data. . .(emphasis added)” as currently recited by claim 52. Thus, Applicant respectfully submits that claim 52 is patentably distinguished over Clark. Accordingly, Applicant respectfully submits that, at least for one or more reasons presented, claim 52 and those dependent therefrom are allowable.

Applicant respectfully submits that Clark neither teaches nor suggests “. . .receiving user input which configures constraints and targets of the process as a trajectory, wherein the trajectory comprises a profile which is dependent on time (emphasis added). . .” and “. . .controlling the process based on the configured constraints and targets of the process, wherein the process is controlled to follow the trajectory. . .” as currently recited by claim 57. Thus, Applicant respectfully submits that claim 57 is patentably distinguished over Clark. Accordingly, Applicant respectfully submits that, at least for one or more reasons presented, claim 57 and those dependent therefrom are allowable.

Removal of the §102 rejections is respectfully requested.

### **§103 Rejections**

Claims 20-21, 36-37, 48-49, and 59-62 were rejected under 35 U.S.C. 103(a) as being unpatentable over Clark in view of Walser et al. (U.S. Patent No. 6,731,998, hereinafter “Walser”). This rejection is respectfully traversed.

Applicant respectfully submits that there is no teaching, suggestion, or motivation to combine Clark and Walser in either of the references or in the prior art. As held by the U.S. Court of Appeals for the Federal Circuit in *Ecolochem Inc. v. Southern California Edison Co.*, an obviousness claim that lacks evidence of a suggestion or motivation for one of skill in the art to combine prior art references to produce the claimed invention is defective as hindsight analysis. Furthermore, Applicant respectfully submits that it is nonobvious to combine Clark and Walser.

Furthermore, the showing of a suggestion, teaching, or motivation to combine prior teachings “must be clear and particular. . .Broad conclusory statements regarding the teaching of multiple references, standing alone, are not ‘evidence’.” *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). The art must fairly teach or suggest to one to make the specific combination as claimed. That one achieves an improved result by making such a combination is no more than hindsight without an initial suggestion to make the combination. Applicant respectfully submits that there is no suggestion in the prior art for combining Clark and Walser, and that even were the two references combined, they would not produce the features of claims 1-14, 16-19, 21-30, 32-35, 37-40, 43-47, and 49-69.

Applicant respectfully submits that neither Clark nor Walser teaches or suggests “. . .wherein the second solution uses the model of the first solution to determine how the first solution will respond to actions provided by the second solution. . .(*emphasis added*)” as currently recited in claim 1.

Rather, Walser teaches and discloses:

(1) determining a solution to a first sub-problem of the optimization problem using the first optimization software based on the at least partial information concerning the optimization problem known to the first optimization software; (2) communicating from the first optimization software to the second optimization software the solution to the first sub-problem and information concerning one or more penalties for deviating from the solution to the first sub-problem; and (3) determining a solution to a second sub-problem of the optimization problem using the second optimization software based on the at least partial information concerning the optimization problem known to the second optimization software, the communicated solution to the first sub-problem, and the communicated information concerning one or more penalties for deviating from the

solution to the first sub-problem. (Walser col. 1, line 67 - col. 2, line 15)  
(*emphasis added*)

Thus, Applicant respectfully submits that claim 1 is patentably distinguished over both Clark and Walser, taken both singly and in combination. Accordingly, Applicant respectfully submits that, at least for one or more reasons presented, claim 1 and those dependent therefrom are allowable.

Claims 24 and 63 include limitations similar to claim 1, and so the arguments presented above apply with equal force to claims 24 and 63, as well. Thus, Applicant respectfully submits that each of claims 24 and 63 is patentably distinguished over both Clark and Walser, taken both singly and in combination. Accordingly, Applicant respectfully submits that, at least for one or more reasons presented, claims 24 and 63 and those respectively dependent therefrom are allowable.

Applicant respectfully submits that neither Clark nor Walser teaches or suggests “. . .including the model of the second solution into the first solution, wherein the first solution uses the model of the second solution to determine how the second solution will respond to actions provided by the first solution. . .(*emphasis added*)” as currently recited by claim 43. Thus, Applicant respectfully submits that claim 43 is patentably distinguished over both Clark and Walser, taken both singly and in combination. Accordingly, Applicant respectfully submits that, at least for one or more reasons presented, claim 43 and those dependent therefrom are allowable.

Applicant respectfully submits that neither Clark nor Walser teaches or suggests “. . .wherein the second solution uses the model of the first solution to determine how the first solution will respond to actions provided by the second solution (*emphasis added*)” as recited by claim 59. Thus, Applicant respectfully submits that claim 59 is patentably distinguished over both Clark and Walser, taken both singly and in combination. Accordingly, Applicant respectfully submits that, at least for one or more reasons presented, claim 59 and those dependent therefrom are allowable.

Applicant respectfully submits that neither Clark nor Walser teaches or suggests “. . . wherein the first solution uses the model of the second solution to dynamically determine how the second solution will respond to actions provided by the first solution (*emphasis added*)” as recited by claim 61. Thus, Applicant respectfully submits that claim 61 is patentably distinguished over both Clark and Walser, taken both singly and in combination. Accordingly, Applicant respectfully submits that, at least for one or more reasons presented, claim 61 and those dependent therefrom are allowable.

Applicant also respectfully submits that numerous ones of the dependent claims recited further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

Removal of the §103 rejections is respectfully requested.

## CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5650-00201/JCH.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☒ Notice of Change of Address

Respectfully submitted,



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Jeffrey C. Hood  
Reg. No. 35,198  
ATTORNEY FOR APPLICANT(S)

Meyertons, Hood, Kivlin, Kowert & Goetzel PC  
P.O. Box 398  
Austin, TX 78767-0398  
Phone: (512) 853-8800  
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**IN THE DRAWINGS:**

Applicant submits replacement sheets for Figures 13, 23, and 25.